TITLE

AKTIVITAS ANTIBAKTERI EKSTRAK METANOL BUNGA PEPAYA JANTAN (CARICA PAPAYA L.) TERHADAP PERTUMBUHAN BAKTERI STAPHYLOCOCCUS AUREUS DAN ESCHERICHIA COLI

ABSTRACT

ABSTRAK

Tanaman pepaya (Carica papaya L.) berpotensi untuk dijadikan sebagai sumber senyawa antibakteri. Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri ekstrak metanol bunga pepaya jantan terhadap Staphylococcus aureus ATCC 25923 dan Escherichia coli ATCC 25922. Ekstrak diperoleh menggunakan metode sokletasi dan pengujian aktivitas antibakteri menggunakan metode difusi sumuran. Hasil karakterisasi ekstrak menunjukkan kadar air sebesar 24,02%, kadar abu total 2,18%, kadar sari larut air 51,37%, dan kadar sari larut etanol 39,40%. Hasil uji fitokimia ekstrak menunjukkan adanya kandungan metabolit sekunder berupa alkaloid, flavonoid, tanin, saponin, dan steroid. Hasil uji aktivitas ekstrak metanol bunga pepaya jantan dengan konsentrasi 6,25; 12,5; 25; dan 50% dapat menghambat pertumbuhan bakteri S. aureus dengan diameter zona hambat masing-masing sebesar 8,2; 11,4; 13,8; dan 25,3 mm, sedangkan terhadap bakteri E. coli masing-masing
sebesar 12,7; 12,2; 10,7; dan 10,1 mm.

Kata kunci: Bunga pepaya jantan, sokletasi, ekstrak methanol, difusi sumuran

ABSTRACT

Papaya (Carica papaya L.) is a potential plant that can be used as a source of natural antibacterial compound. The aim of this research is to investigate the antibacterial activity of male papaya flower extract against Staphylococcus aureus ATCC 25923 and Escherichia coli ATCC 25922. The extract was obtained using soxhletation method and the antibacterial activity assay was done by well diffusion method. It contains 24,02% of water, 2,18% total ash, 51,37% water soluble extract, and 39,40% ethanol soluble extract. Phytochemical assay showed that extract contains alkaloids, flavonoids, tannins, saponins, and steroids compounds. Methanol extract of male papaya flower at concentration of 6,25; 12,5; 25; and 50% inhibits the growth of S. aureus which diameter of inhibition zone were 8,2; 11,4; 13,8; and 25,3 mm, while the E. coli bacteria were 12,7; 12,2; 10,7; and 10,1 mm.

Keywords: Male papaya flower, soxhletation, methanol extract, well diffusion